



City of Port Moody

Minutes

Climate Action Committee

Minutes of the electronic meeting of the Climate Action Committee held on Monday, September 28, 2020 via Zoom.

Present

Councillor Meghan Lahti, Chair
Councillor Amy Lubik, Vice-Chair
Elaine Golds
Helen Howes
Mike Kasuya
Shelley Moore
Bryn Sadownik
Derek Wilson

In Attendance

Philip Lo – Committee Coordinator
Laura Sampliner – Sustainability and Energy Coordinator

Also In Attendance

Ralph Wells, University of British Columbia (for item 4.1)

1. Call to Order

The Vice-Chair called the meeting to order at 7:04

2. Adoption of Minutes

Minutes

2.1 CAC20/013

Moved, seconded, and CARRIED

THAT the minutes of the Climate Action Committee meeting held on Monday, July 27, 2020 be adopted.

3. Unfinished Business

4. New Business

Designing Climate Resilient Multifamily Buildings

4.1 Presentation: Ralph Wells, University of British Columbia

Attachment: UBC – Designing Climate Resilient Multifamily Buildings, Final Report

Ralph Wells, Community Energy Manager at the University of British Columbia, gave a presentation on maintaining thermal comfort in multiple unit residential buildings (MURBs) under a Changing Climate, noting the following:

- over the next 20 to 30 years, climate preparations will remain the same regardless of the severity of the warming climate trends;
- historically, providing cooling or air conditioning in buildings had not been necessary; however, climate projections show that this will change, and that cooling in buildings will need to be focused on;
- weather files are needed for essential energy modelling; current weather files from the Government of Canada are based on historical trends which may no longer be accurate as the climate changes;
- a UBC project created “future climate weather files”, which uses existing weather files to project future weather files;
- there is an urgent need to consider future climate for MURBs to avoid future overheating;
- the key question is how to design buildings that do not overheat, and also what can be done passively to cool down buildings;
- low rise buildings could employ less glass, reduce the heat gain of glass, or adding shading; modelling show that these buildings can still be built without air condition, without overheating;
- for high rise buildings, there is a need to understand energy use for air condition, and the Step Code currently does not consider cooling energy;
- passive house technology used around as much energy for cooling as non-passive house designs, as they are designed to maximize heat retention, meaning that heat does not escape easily;
- modelling shows that through to the 2080s, energy use for cooling increases substantially;
- passive house design and passive measures can improve energy efficiency and resilience, and has additional ability to withstand impact of power outages;
- building envelope upgrades and heat pumps provide energy efficient adaptation and mitigation;
- local governments can support BC Building Code changes to require design for future climate thermal comfort using passive design;
- local governments can consider administrative requirements to have development projects report modelling results using future climate weather files; and
- local governments can work with the Province to develop retrofit programs and incentive programs for existing buildings to support transition to heat pumps for cooling and heating.

In response to questions from the Committee, Mr. Wells noted the following:

- the engineering community is working on adapting and using future climate weather files for other aspects of climate engineering, such as stormwater management;

- some adaptation measures may not necessary pay for themselves, and the issue could come down to cost versus change;
- passive ventilation is more challenging to design, and may not mitigate air quality issues (where a sealed system with filtration is preferred), but there may be opportunities for improvement;
- heat pumps have not been widely used in BC as the province historically has had mild weather, and natural gas systems were sufficient and inexpensive; heat pumps for BC summers are likely ideal;
- for high rises, glass usage and the lack of shading are larger issues than green roofs; wood-frame low rises could benefit more from green roofs;
- the UBC future climate files implicitly exclude rural communities; however, modelling results are relevant to any community that has those types of buildings;
- single family homes are at lesser risk for overheating, and retrofitting is more straightforward;
- the glazing issue is more about being mindful of the directionality of the glass and including external shading over windows, and being smarter about design in general; and
- local governments can ask developers to complete an energy design report which includes heating hours; as well as another report with the 2050 weather files.

Staff noted that the City can plan actions around education on transition to electric and low-carbon models for residential and commercial buildings, and that the City can ask development projects to conduct energy modelling based on future climate files.

Councillor Lahti exited the meeting at this point and did not return.

Climate Action Plan – Update

4.2 Sustainability and Energy Coordinator

Staff noted the following:

- the Plan is currently into implementation stage;
- the staff climate action group is working on a two-year implementation and budgeting plan to determine priority actions, lead departments, and costs for the first two years of the Plan, especially actions in transportation, buildings, mitigation, and adaptation that need to be initiated now to meet the 2030 targets;
- over 20 actions have been identified from the 54 total actions as priorities, based on staff capacity, alignment with existing plans, future timelines, and future climate scenarios;
- staff are using an online collaboration tool to work on the actions; and
- the implementation and budgeting plan is scheduled for Council consideration in late 2020.

**Climate Action Award
– Update**

4.3 Sustainability and Energy Coordinator

Staff noted that the Award is currently awaiting Council approval of financial considerations in October, and that it will be brought into the Civic Award process in 2021, to be awarded in early 2022.

**FCM Video:
Responding to
Climate Change with
Asset Management**

4.4 Video link: <https://fcm.ca/en/resources/video-series-climate-resilience-and-asset-management?cldee=bWRlcGFvbGlAcG9ydG1vb2R5LmNh&recipientid=contact-b56cd44af22ee91180cc005056bc7996-93b84ccdc4e349ea9ebc044a3452491a&esid=b7ab731d-6ab2-ea11-80d0-005056bc7996>

The Committee viewed a video from the Federation of Canadian Municipalities titled “Leadership in Climate and Asset Management”, which discussed the importance of incorporating a climate change lens and data to the renewal and repair of municipal infrastructure, as well as to the risk management and long-term budgeting processes.

Call for Volunteer

4.5 Sustainability and Energy Coordinator

Staff noted that one volunteer is being sought to participate in a one-hour, anonymous interview with a UBC PhD candidate regarding policy processes associated with climate change mitigation and carbon governance in the Vancouver region.

5. Information

Staff Updates

5.1 There were no staff updates.

6. Adjournment

Councillor Lahti adjourned the meeting at 8:30pm.


Councillor Meghan Lahti,
Chair


Philip Lo,
Committee Coordinator